

Tennessee's Behavioral Risk Factor Survey 1998



April 2001

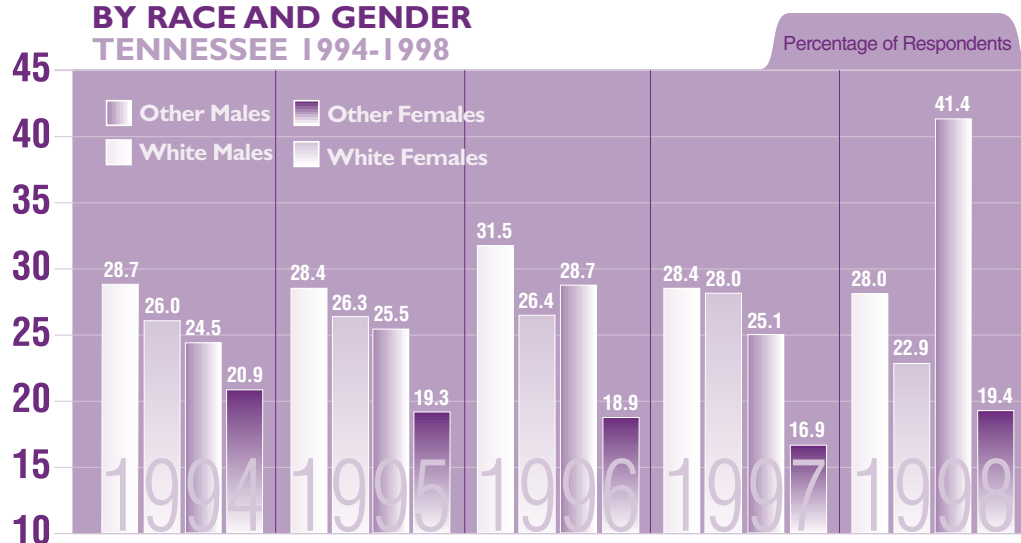
The Behavioral Risk Factor Surveillance System is a state-based computer-assisted telephone interviewing effort conducted in cooperation with the Centers for Disease Control and Prevention. Since 1984, surveys have been done every month with adults of randomly selected households throughout the state. Questions are constructed to determine the behaviors of individuals that will affect their risk of developing chronic diseases that may lead to premature mortality and morbidity. The data collected helps to identify high risk populations that can be targeted for intervention programs. The data can also be used to track changes over time of risk factor behaviors and related diseases, and can assess the impact of health promotion and prevention intervention programs. Currently, every state in the country, the District of Columbia, and three U.S. territories are members of this surveillance system.

Tennessee currently conducts over 3,000 interviews annually. During 1998, approximately 12,500 unique telephone numbers and over 29,000 call attempts to those numbers were required to complete these interviews. *Tennessee's Behavioral Risk Factor Survey 1998* examines the results of some of the survey questions, and the trends for specific risk factors for the period 1994-1998.

Please bear in mind that the percentage estimates presented in the following tables represent point estimates made from sample data. As such, they are associated with a certain degree of random variation which must be taken into consideration in viewing and interpreting the data. The comparison of the percentages of the various risk factors and their differences by demographic characteristics may or may not be of valid concern. To assist in the interpretation of observed rates, 95 percent confidence intervals were calculated for each percentage. Statistically significant differences ($\alpha=0.05$) are noted in the related discussion.

Tobacco use is the most preventable cause of premature mortality and morbidity in the United States and Tennessee. According to the survey, white males overall reported the highest smoking percentage rates for four of the last five years presented.

PERCENTAGE OF CURRENT SMOKING BY RACE AND GENDER TENNESSEE 1994-1998

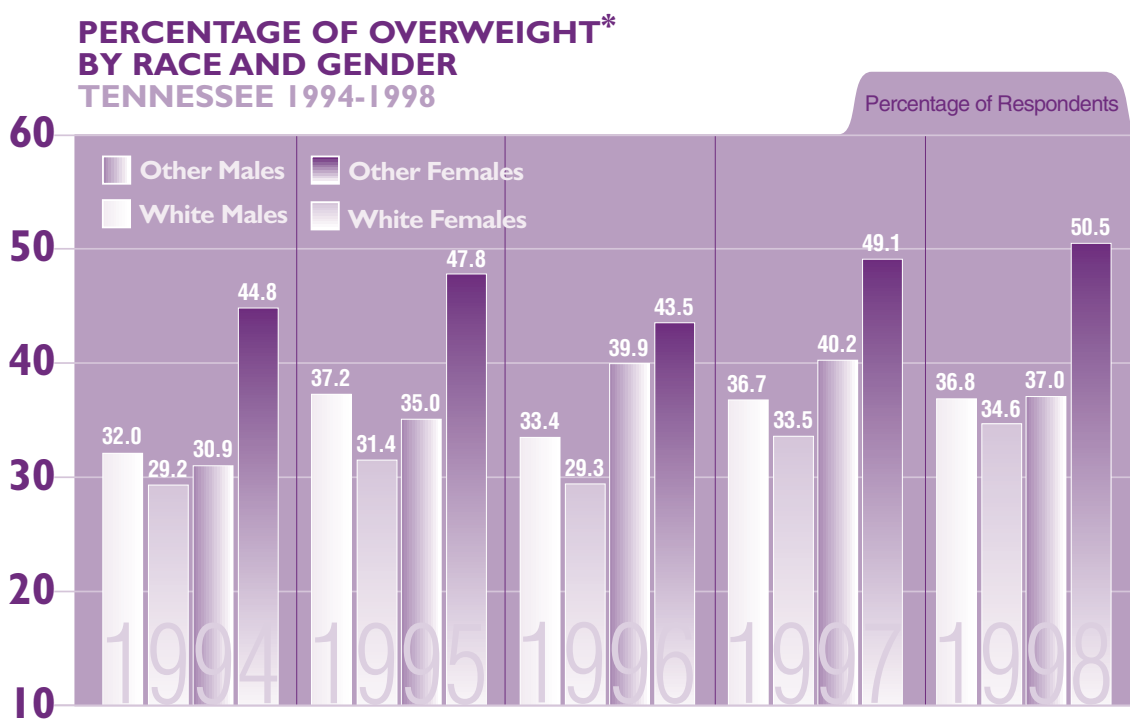


Nonwhite females reported the lowest for all five years. The high percentage rate for nonwhite males in 1998 appears to be inconsistent with the rest of the data presented. It was, however, verified to be the correct data reported from the Centers for Disease Control and Prevention. We have not ascertained at this point in time whether or not there has been a dramatic increase in the percentage of smoking in nonwhite males or whether or not this is a reporting anomaly. The rate of 41.4 percent was based upon a sample size of 149 and had a standard error of 5.0. The



increase is much more than what could be attributed to chance alone and is statistically significantly different from the equivalent rates in previous years. Data for 2000 for this particular category will be closely monitored to see if there is a potential behavioral health problem that needs to be addressed. Other statistically significant differences were noted between the white and nonwhite populations in 1994; between the white female and nonwhite female populations in 1995; between the white and nonwhite populations in 1996; between the white and nonwhite populations and between the white female and nonwhite female populations in 1997; and between

the male and female populations, between the white and nonwhite populations, and between the white male and nonwhite male populations in 1998. The statistically significant differences, noted in 1998, are due in a large part to the high reported percentage for nonwhite males just mentioned. In observing trend data, there were no statistically significant differences in the demographic categories presented between 1994 and 1998 except for nonwhite males which indeed showed a statistically significant increase. The prevalence of smoking for all demographic groups is still well above the *Healthy People 2000 Objective* of 15 percent.



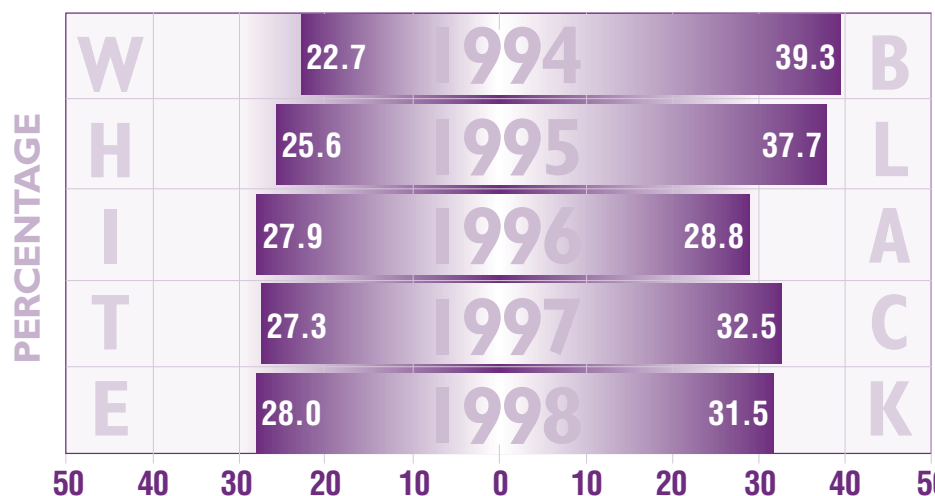
*Respondent at or above 120% of ideal weight. Ideal weight defined as the mid-value of a median frame person from the 1959 metropolitan height-weight tables.

Being overweight is a risk factor for heart disease, cancer, stroke, and diabetes. According to the Behavioral Risk Factor Survey, the white population had lower rates of obesity than the nonwhite population. Of the populations surveyed in 1998, 50.5 percent of nonwhite females reported being overweight. This was 46.0 percent greater than the rate of 34.6 percent for white females, a statistically significant difference. Other statistically significant differences noted were between the nonwhite male and nonwhite female populations and between the white female and nonwhite female populations in 1994; between the white male and white

female populations and between the white female and nonwhite female populations in 1996; between the white and nonwhite populations and white female and nonwhite female populations in 1997; and between the nonwhite male and nonwhite female populations in 1998. While the trend data from 1994 to 1998 indicates that the percentage of being overweight has been increasing, only the increase differences for white males and white females between 1994 and 1998 were statistically significant. The percentage of being overweight is still well above the *Healthy People 2000 Objective* of 20 percent.

Uncontrolled hypertension is a well-known risk factor for cardiovascular, cerebrovascular, and end-stage renal diseases. The data received for analysis for this behavioral risk factor was in a slightly different format than that received for the other factors. The data was classified using the racial categories of white and black instead of white and nonwhite and no confidence interval data was provided. Therefore, only point estimates of the percentage rates for these racial categories are presented. The survey showed that the black population had higher percentages of hypertension than the white population for the period 1994-1998. In 1998, the percentage of 31.5 for the black population with hypertension was 12.5 percent higher than the percentage of 28.0 for the white population.

HYPERTENSION AWARENESS* BY RACE TENNESSEE 1994-1998



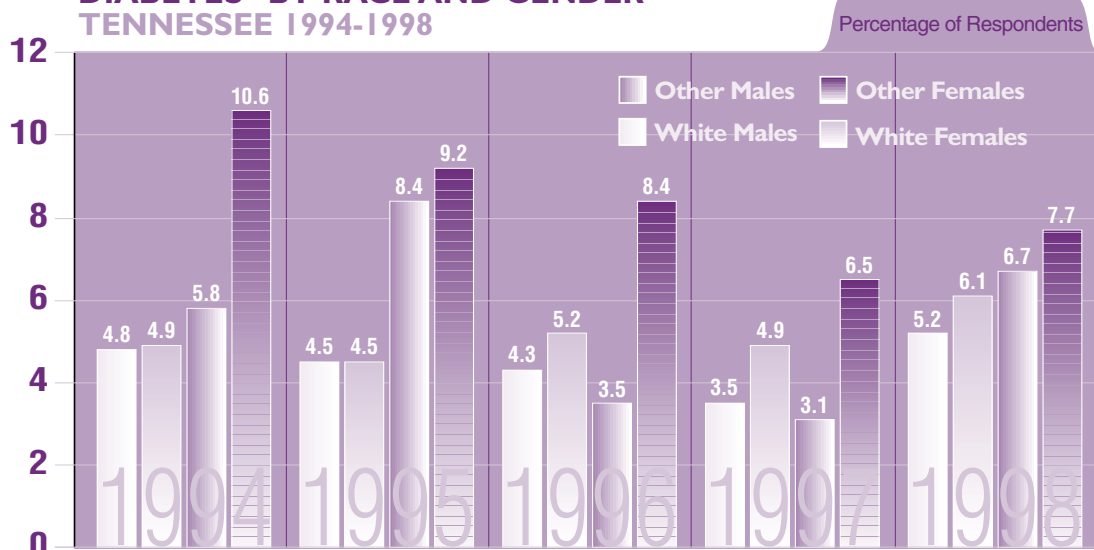
*Ever told blood pressure is high.

Diabetes is a chronic metabolic disease. In 1998, it was the seventh leading cause of death in Tennessee, and a contributing cause for various other deaths including cardiovascular disease. According to the survey, nonwhite females reported the

highest percentage rates for each of the years during the 1994-1998 period. However, the difference in rates was only statistically significant for the comparison with white females in 1994. Other statistically significant differences

noted were between the white and nonwhite populations in 1994 and 1995; between nonwhite males and nonwhite females in 1996; and between males and females in 1997. There was no noticeable trend and no statistically significant differences in comparison of any of the demographic categories between 1994 and 1998. The *Healthy People 2000 Objective* for diabetes is 25 per 1,000 persons or 2.5 percent.

PERCENTAGE OF RESPONDENTS WHO REPORTED DIABETES* BY RACE AND GENDER TENNESSEE 1994-1998

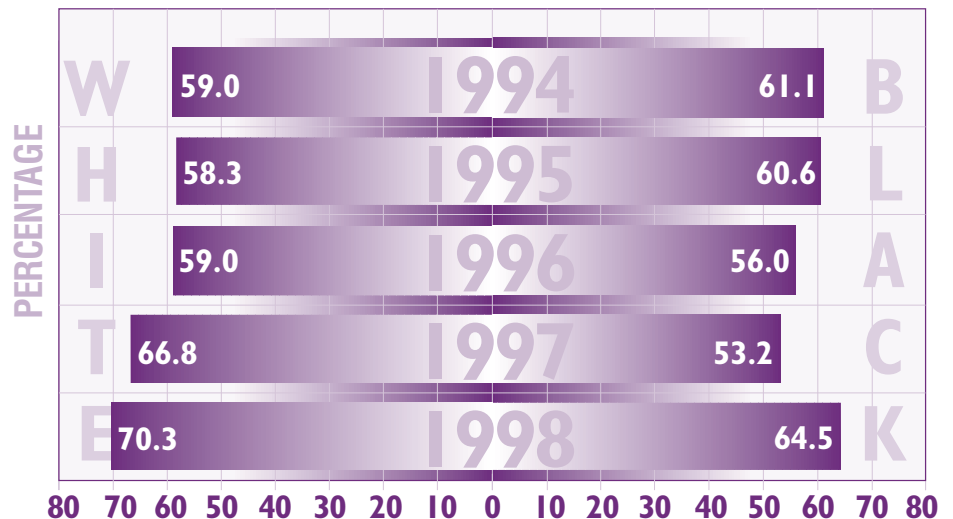


*Doctor diagnosed diabetes.

Having a mammogram and clinical breast examination is a very important and highly effective diagnostic screening procedure in the early detection and prevention of breast cancer, especially in women age 50 and over. Of the population surveyed in 1994-1998, for four out of five years there was very little difference between the two demographic racial groups in the percent of women 50 years of age and older who reported having had a mammogram and clinical breast examination within the previous two years. A statistically significantly higher percentage of white women having the mammogram and examination was noted for 1997. According to the 1998 survey data, the percentage for both the white female population age 50 and over (71.1 percent) and the nonwhite population age 50 and over (69 percent) were greater than the *Healthy People 2000 Objective* of 60 percent. Trend data shows the increase in percentage between 1994 and 1998 was statistically significant only for white women age 50 and over.

PERCENTAGE OF WOMEN RESPONDENTS AGED 50 AND OLDER WHO HAD A MAMMOGRAM AND BREAST EXAM WITHIN LAST TWO YEARS BY RACE TENNESSEE 1994-1998

Healthy People 2000 National Objective for all races is 60.0 percent

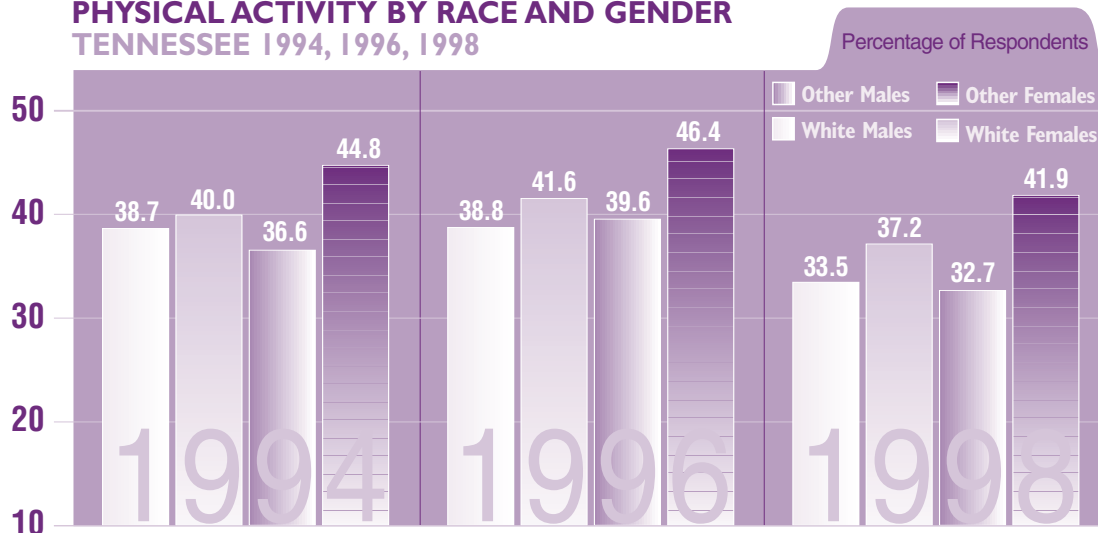


Physical activity and fitness are good health habits for promoting a healthy life and a preventive lifestyle. The percent of the population who reported no physical activity was surveyed in 1994, 1996, and 1998. Of the population surveyed during these time periods, females reported a higher percentage of physical inactivity than males. This difference, however,

was only statistically significant in 1998. No other statistically significant differences between the demographic categories were noted. An average of these three year periods for these surveys indicated that physical activity decreased with age and an average of 50.1 percent of the age group 65 years of age and older reported that they were physically inactive. This

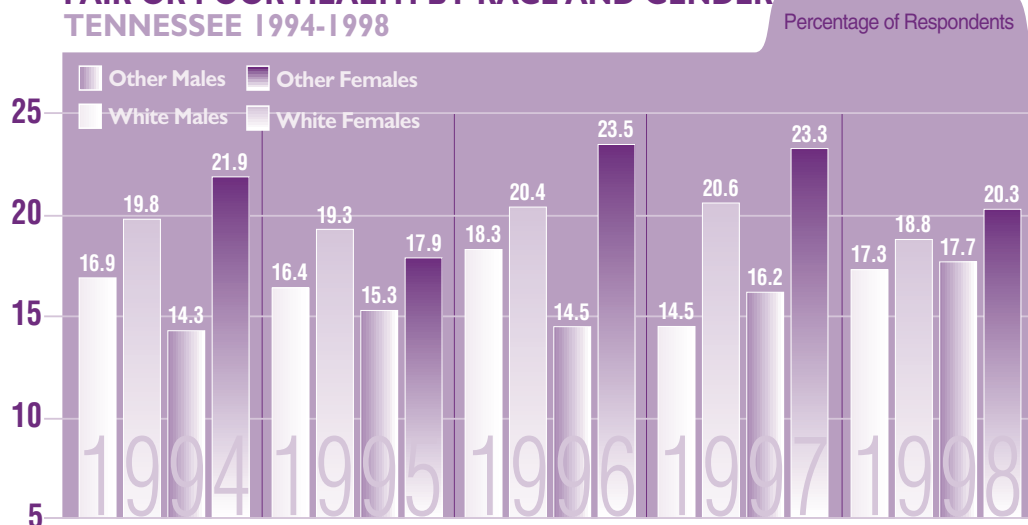
compared to an average of 36.2 percent for respondents age 18-64 over the same three-year period. While the data shows a general decrease in inactivity during these time periods; only that for white males was statistically significantly different between 1994 and 1998. This appears to be a very positive trend. It is hoped that people are becoming aware of the benefits of physical activity and fitness.

PERCENTAGE OF RESPONDENTS WHO REPORTED NO PHYSICAL ACTIVITY BY RACE AND GENDER TENNESSEE 1994, 1996, 1998



The Behavioral Risk Factor Survey indicated that the greatest percentage of respondents who reported fair or poor health were female. Nonwhite females reported the highest percentage for each year of the five-year period 1994-1998 with the exception of 1995. Statistically significant differences were only noted between male and female populations and between nonwhite male and nonwhite female populations in 1994 and 1996; and between male and female populations and white male and white female populations in 1997. Trend data is inconclusive over this time period. Comparisons of the various demographic categories between 1994 and 1998 showed no statistically significant differences.

PERCENTAGE OF RESPONDENTS WHO REPORTED FAIR OR POOR HEALTH BY RACE AND GENDER TENNESSEE 1994-1998

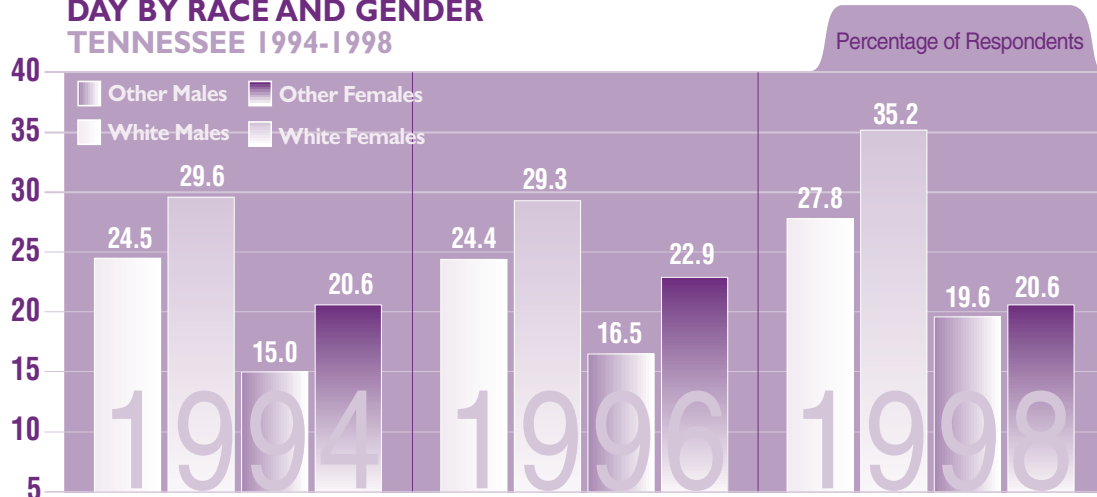


Good nutrition is a good health habit for promoting a healthy life and a preventive lifestyle. The percent of the population who reported they consumed five or more fruits and vegetables per day was surveyed in 1994, 1996, and 1998. The survey reported that the white population had the highest percentage of the population reporting that they

consumed five or more fruits and vegetables daily for the period 1994, 1996, and 1998. These differences were statistically significant in all three years. The racial and gender rate differences for this risk factor were quite apparent. Other statistically significant differences noted were between the male and female populations, the white male and white

female populations, the white male and nonwhite male populations, and the white female and nonwhite female populations in 1994 and 1996; and between the male and female populations, between the white male and white female populations and between the white female and nonwhite female populations in 1998. A comparison of trend data between 1994 and 1998 only showed a statistically significant difference for the white female demographic category.

PERCENTAGE OF RESPONDENTS WHO REPORTED THEY CONSUMED FIVE OR MORE FRUITS AND VEGETABLES PER DAY BY RACE AND GENDER TENNESSEE 1994-1998



Tennessee's Behavioral Risk Factor Survey 1998



To increase the span of healthy life is a challenge for health officials in Tennessee as well as the nation. Health promotion strategies can play an important role in influencing personal choices for good health habits and preventative lifestyles. Prevention intervention programs to promote physical activity and fitness, good nutrition, and early cancer detection along with programs to educate the population to the health risks of diabetes, tobacco, alcohol and drugs, and a sedentary lifestyle are important tools toward increasing years of healthy life. The Behavioral Risk Factor Surveillance System can assist in identifying those individuals in need of community-based programs that promote healthy lifestyles, and programs that provide education to reduce the risk of heart disease, cancer, and other diseases that could lead to premature mortality.

Please visit the Health Statistics and Research and Health Information Tennessee (HIT) pages on the Tennessee Department of Health website

<http://www.state.tn.us/health>

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Marguerite Lewis, Director

For additional information please contact:

George Plumlee, Coordinator, (615)741-1954



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Tennessee Department of Health
Bureau of Policy Planning and Assessment
Health Statistics and Research
Cordell Hull Building
425 5th Ave. No., 4th Floor
Nashville, Tennessee 37247-5262